

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

(previously presented) Claims 1 – 54. (canceled).

- 5 (newly presented) 55. A method for generating data for assessing cognitive or sensorimotor capabilities or capacities of a test person for a test subject, the method comprising:

chronologically tracking a plurality of cerebral activities for a given moment in time;

- 10 determining a cerebral location corresponding to each one of the plurality of cerebral activities;

filtering the cerebral location corresponding to each one of the plurality of cerebral activities to trace relevant source locations only;

- 15 registering a respective data value associated with each of the plurality of filtered cerebral locations for a corresponding cerebral activity;

tracing a relevant change in the cerebral activities from the filtered cerebral locations;

- 20 associating the relevant source locations with a region of the brain wherein the regions of the brain comprise temporal lobe, hippocampus system, limbic system, frontal lobe, occipital lobe, and parietal lobes of the test subject;

grouping the relevant source locations within the regions of the brain; and

assessing the test person's cognitive or sensomotor capabilities or capacities of the test subject by interrelating the grouping of the relevant source location.

5 (newly presented) 56. The method of claim 55 wherein determining the cerebral location further comprises: measuring the cerebral field electric potential.

(newly presented) 57. The method of claim 55 wherein determining the cerebral location further comprises: measuring the cerebral field magnetic potential.

10 (newly presented) 58. The method of claim 56 further comprising: using magnetic encephalograph or electro-encephalograph to measure a neural discharge that accompanies the at least one cerebral activities.

15 (newly presented) 59. The method of claim 55 wherein the chronologically tracking the plurality of cerebral activities further comprises: providing stimulus related to sensory or cognitive activities.

(newly presented) 60. The method of claim 59 wherein the providing stimulus related to sensory or cognitive activities further comprises: visual, acoustic, or somatic sensory stimuli.

20 (newly presented) 61. The method of claim 55 further comprising: observing the plurality of cerebral activities using a positron emission tomography device.

(newly presented) 62. The method of claim 55 further comprising: observing the plurality of cerebral activities using a functional magnetic resonance imaging device.

(newly presented) 63. The method of claim 55 wherein determining a  
5 cerebral location further comprises: calculating a potential source location.

(newly presented) 64. The method of claim 55 further comprising:  
correlating a level of cognitive or sensorimotor capabilities or capacities of the  
test person for the test subject based on a number of relevant source locations  
within different groups of brain regions.

10 (newly presented) 65. The method of claim 55 further comprising: assessing  
the truthfulness of the test person based on a number of relevant source  
locations within different groups of brain regions.

(newly presented) 66. A System for generating data for assessing cognitive  
or sensorimotor capabilities or capacities of a test person for a test subject, the  
15 system comprising:

a plurality of sensors adapted for coupling to the test person;

an amplifier connected to the plurality of sensors;

a computer in communication with the amplifier, the computer  
being adapted to record output from the plurality of sensors;

20 a storage medium with a program stored therein, the program  
being adapted to execute a method;

the computer further comprising a central processing unit adapted to communicate with the amplifier, an output device, the memory device, and the storage medium; and

5 a program residing in the computer, the program comprising computer operable instructions comprising

chronologically tracking a plurality of cerebral activities for a given moment in time;

determining a cerebral location corresponding to each one of the plurality of cerebral activities;

10 filtering the cerebral location corresponding to each one of the plurality of cerebral activities to trace relevant source locations only;

registering a respective data value associated with each of the plurality of filtered cerebral locations for a corresponding cerebral activity;

15 tracing a relevant change in the cerebral activities from the filtered cerebral locations;

associating the relevant source locations with a region of the brain wherein the regions of the brain comprise temporal lobe, hippocampus system, limbic system, frontal lobe, occipital lobe, and parietal lobes of the test subject; and

20 grouping the relevant source locations within the regions of the brain.

(newly presented) 67. The system of claim 66 further comprising:

a memory device in communication with the central processing unit and adapted for storing test situations;

an output device for visual or acoustic or somatic sensory presentation of test situations to the test person;

and wherein the computer operable instructions further comprise instructions to create visual, or acoustic, or somatic sensory stimuli according to a pre-defined pattern, the instructions enabling operation of the output device.

(newly presented) 68. The system of claim 66 wherein the amplifier comprises at least one of the following:

an electroencephalograph, a magnetoencephalograph, a positron emission tomography device, a functional magnetic resonance device.

10 (newly presented) 69. The system of claim 66 wherein the method comprises:

chronologically tracking a plurality of cerebral activities for a given moment in time;

15 determining a cerebral location corresponding to each one of the plurality of cerebral activities;

filtering the cerebral location corresponding to each one of the plurality of cerebral activities to trace relevant source locations only;

registering a respective data value associated with each of the plurality of filtered cerebral locations for a corresponding cerebral activity;

20 tracing a relevant change in the cerebral activities from the filtered cerebral locations;

associating the relevant source locations with a region of the brain wherein the regions of the brain comprise temporal lobe, hippocampus

system, limbic system, frontal lobe, occipital lobe, and parietal lobes of the test subject;

grouping the relevant source locations within the regions of the brain; and

- 5                    assessing the test person's cognitive or sensomotor capabilities or capacities of the test subject by interrelating the grouping of the relevant source location.

(newly presented) 70.        The system of claim 69 wherein the method comprises:

- 10                   assessing the test person's cognitive or sensomotor capabilities or capacities of the test subject by interrelating the grouping of the relevant source location.